

Claims

What is claimed is:

1. A method in a computing system having a first partition including a first operating system and a second partition including a second operating system, the method comprising the steps of:
- a) conveying first partition throughput information from said first partition to a partition manager;
 - b) creating in said partition manager, resource balancing directives from said throughput information;
 - c) allocating resources to said first partition by the partition manager according to the resource balancing directives.
2. The method according to claim 1 wherein the partition manager comprises a workload manager running in said second partition and a hypervisor.
3. The method according to claim 1 wherein communication between partitions includes inter-partition memory sharing.
4. The method according to claim 1 wherein communication between partitions includes single operation message passing.
5. The method according to claim 1 wherein the information about throughput is obtained by a packet activity counter .
6. The method according to claim 1 wherein the information about throughput is obtained by counting network packets related to a partition.
7. The method according to claim 6 wherein packets received by a partition are counted.

1 8. The method according to claim 6 wherein packets sent by a
2 partition are counted.

1 9. The method according to claim 6 wherein said network packets
2 are related to said first partition.

1 10. The method according to claim 1 wherein the information about
2 throughput is obtained by relating network traffic to a
3 processor utilization over a period of time.

1 11. The method according to claim 10 wherein the network traffic
2 is obtained by counting network packets related to a partition.

1 12. The method according to claim 10 wherein processor
2 utilization is obtained from a system activity counter.

1 13. The method according to claim 10 wherein processor
2 utilization is a system activity counter.

1 14. The method according to claim 10 wherein relating a network
2 traffic to a processor utilization is a ratio of number of
3 packets over time.

1 15. A computer program product comprising a computer useable
2 medium having computer readable program code means therein in a
3 computing system having a first partition including a first
4 operating system and a second partition including a second
5 operating system, the computer readable program code means in
6 said computer program product comprising:

7 a) computer readable program code means for conveying
8 first partition throughput information from said first partition
9 to a partition manager;

10 b) computer readable program code means for creating in said
11 partition manager, resource balancing directives from said
12 throughput information;

13 c) computer readable program code means for allocating
14 resources to said first partition by the partition manager
15 according to the resource balancing directives.

1 16. The computer program product according to claim 15 wherein
2 the partition manager comprises a workload manager running in
3 said second partition and a hypervisor.

1 17. The computer program product according to claim 15 wherein
2 communication between partitions includes inter-partition memory
3 sharing.

1 18. The computer program product according to claim 15 wherein
2 communication between partitions includes single operation
3 message passing.

1 19. The computer program product according to claim 15 wherein
2 the information about throughput is obtained by a system activity
3 counter.

1 20. The computer program product according to claim 15 wherein
2 the information about throughput is obtained by counting network
3 packets related to a partition.

1 21. The computer program product according to claim 20 wherein
2 packets received by a partition are counted.

1 22. The computer program product according to claim 20 wherein
2 packets sent by a partition are counted.

23. The computer program product according to claim 20 wherein the partition is the first partition.

24. The computer program product according to claim 15 wherein the information about throughput is obtained by relating network traffic to a processor utilization over a period of time.

25. The computer program product according to claim 24 wherein the network traffic is obtained by counting network packets related to a partition.

26. The computer program product according to claim 24 wherein processor utilization is obtained from a system activity counter.

27. The computer program product according to claim 24 wherein processor utilization is a system activity counter.

28. The computer program product according to claim 24 wherein relating a network traffic to a processor utilization is a ratio of number of packets over time.

29. A system in a computing system having a first partition including a first operating system, and a second partition including a second operating system, the system comprising:

a) means for conveying first partition throughput information from said first partition to a partition manager;

b) means for creating in said partition manager, resource balancing directives from said throughput information;

c) means for allocating resources to said first partition by the partition manager according to the resource balancing directives.

1 30. The system according to claim 29 wherein the partition
2 manager comprises a workload manager running in said second
3 partition and a hypervisor.

1 31. The system according to claim 29 wherein communication
2 between partitions includes inter-partition memory sharing.

1 32. The system according to claim 29 wherein communication
2 between partitions includes single operation message passing.

1 33. The system according to claim 29 further comprising a packet
2 activity counter for obtaining said information about throughput.

1 34. The system according to claim 29 further comprising counting
2 means for counting network packets related to a partition and
3 wherein the information about throughput is obtained by said
4 counting means.

1 35. The system according to claim 34 wherein packets received by
2 a partition are counted.

1 36. The system according to claim 34 wherein packets sent by a
2 partition are counted.

1 37. The system according to claim 34 wherein packets related to
2 the first partition are counted.

1 38. The system according to claim 29 further comprising network
2 traffic means for relating network traffic to utilization of a
3 processor over a period of time, and wherein the information
4 about throughput is obtained by said network traffic means.

39. The system according to claim 38 further comprising counting means for counting network packet related to a partition and wherein the network traffic is obtained said counting means.

40. The system according to claim 38 further comprising a system activity counter, and wherein processor utilization is obtained from said system activity counter.

41. The system according to claim 38 further comprising a system activity counter, and wherein processor utilization is obtained from said system activity counter.

42. The system according to claim 38 wherein said network traffic means relates network traffic to utilization of a processor over a period of time as a ratio of number of packets over time.

43. A system in a computing system having a first partition and a second partition, the system comprising:

a partition manager for receiving information about throughput from the second partition and determining resource balancing directives;

a communicator communicating the resource balancing directives from said partition manager to a kernel in the second partition, said kernel allocating resources to the second partition according to the resource balancing directives.